

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A loudspeaker unit for a sound source, the loudspeaker unit being adaptable to changing environments, the loudspeaker unit comprising:

- a loudspeaker;
- a microphone for picking up sound regenerated from the loudspeaker;
- a processor for generating a difference by comparing, in real time, a direct output signal from the microphone with an output signal from the sound source with reference to a frequency characteristic and an echo characteristic of the sound regenerated from the loudspeaker, or a reverberation characteristic of the sound, including [[the]] a delay time for the echo characteristic or the reverberation characteristic, the processor further generating a processor output by correcting a the output signal from the sound source using the difference; and
- an amplifier for amplifying the processor output.

2. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 1 wherein said processor for correcting the signal from said sound source comprising:

- a first A/D converter for performing digital conversion of a sound signal outputted from the sound source;
- a memory for storing a converted voice data of samples taken within a fixed time determined as a subject time for the delay of the reverberation characteristic or the echo characteristic;

a second A/D converter for performing digital conversion of the feedback signal outputted from said microphone as the feedback data;

a successive comparison analysis part for successively comparing said feedback data with the stored voice data, analyzing the intensity of the reverberation characteristic or the echo characteristic and outputting the result as a correction parameter;

a regenerative signal processing part for adding data corrected by said correction parameter to the stored voice data and processing the result as the regenerative data; and

a D/A converter for converting said regenerative data to an analog signal.

3. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 1 wherein a successive comparison analysis part performs processing by adding antiphase feedback data to voice data so that the difference between said voice data obtained as the serial data and said feedback data becomes a fixed value or 0.

4. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 1 wherein,

the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are learned by arithmetic and a signal to be sent to the loudspeaker is corrected according to the learned result.

5. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 2, wherein, the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are learned by arithmetic and a signal to be sent to the loudspeaker is corrected according to the learned result.

6. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 1 wherein,

the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are intermittently performed and a signal to be sent to the loudspeaker is corrected according to the comparison result.

7. (Previously Presented) A loudspeaker unit adapted to the environment according to claim 2, wherein, the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are intermittently performed and a signal to be sent to the loudspeaker is corrected according to the comparison result.

8. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 4 wherein,

the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are intermittently performed and a signal to be sent to the loudspeaker is corrected according to the comparison result.

9. (Previously Presented) A loudspeaker unit adapted to the environment according to Claim 5 wherein,

the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are intermittently performed and a signal to be sent to the loudspeaker is corrected according to the comparison result.

10. (Previously Presented) A loudspeaker unit for a sound source, the loudspeaker unit being adaptable to changing environments, the loudspeaker unit comprising:

a loudspeaker;
a microphone for picking up sound regenerated from the loudspeaker;
a processor for generating a processor output by correcting an output signal from the sound source using a difference in a direct output signal from the microphone with an output signal from the sound source with reference to a frequency characteristic and an echo characteristic of the sound regenerated from the loudspeaker, or a reverberation characteristic of the sound, including a delay time for the echo characteristic or the reverberation characteristic; and
an amplifier for amplifying the processor output.